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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,121	09/15/2003	Jerald C. Seelig	619.638 ACC.UA-LED Backli	1844
21707	7590	10/17/2006		EXAMINER
IAN F. BURNS & ASSOCIATES P.O. BOX 71115 RENO, NV 89570			SHAH, MILAP	
			ART UNIT	PAPER NUMBER
			3714	

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/663,121	SEELIG ET AL.	
	Examiner Milap Shah	Art Unit 3712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 22 September 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,2,4-10,44 and 46-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,2,4-10,44 and 46-64 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 22 September 2006 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to the amendment filed September 22, 2006. The Examiner acknowledges that claims 1, 4, 44, & 48-51 were amended, claims 3, 11-43, & 45 were canceled, and claims 52-64 were added. Therefore, claims 1, 2, 4-10, 44, & 46-64 are currently pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5-10, 44, 46-57, & 60-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sunaga et al. (U.S. Patent No. 6,206,781) in view of Haruta (Japanese Patent No. 2001-353255) (attached to the previous action was a machine translation of the abstract & detailed description to English).

Claims 1, 44, 56, 57, & 61: Sunaga et al. disclose the same invention including a reel device comprising:

- a) a chassis (figure 8[reel unit 20]);
- b) an actuator attached to the chassis (figure 8[motor 29]);
- c) a reel structure rotatably attached to the chassis, having a hub (not identified by number on figure 8, however it is considered the portion in the center of reel drum 25 which has spokes attached to it and the outer periphery defining the frame) and a frame (figure 8[outer edge of reel drum 25]) defining a periphery of the

reel structure, the periphery of the reel structure having media (figure 8[reel strip 26], note: plurality of indicia on reel strip) adapted to display a symbol to a game player (column 7, lines 42-43);

d) a board attached to the chassis (figure 8[light case 27]); and

e) a plurality of light emitting diodes positioned on the board, wherein the plurality of light emitting diodes is adapted to transmit light to at least a portion of the media (figure 8[reel lights 28] and column 7, lines 54-56);

With regards to claim 44, the reel as disclosed above is rotatable, the media is attached to the reel, and an actuator (i.e. the motor) is coupled to the reel to rotate the reel. Additionally, Sunaga et al. discloses a controller in communication with the actuator and reel structure (figure 6[motor driver 60]) to control operation of the reel structure based on a random game outcome, and at least one light in communication with the above to light up at least a portion of the media once the reels stop at the random outcome (column 2, lines 45-57).

Sunaga et al. specifically lacks the plurality of light emitting diodes being more densely spaced in one portion of the board than another portion of the board. For example, Sunaga et al. lacks having a first portion with a first density, a second portion with a second density, a third portion with a third density, and a fourth portion with a fourth density (and so on if need be). However, at the time the invention was made, it would have been an obvious matter of design choice to select a specific pattern or matrix of diodes to use on the board. Haruta teaches that the matrix of diodes is a design choice by showing that the number of diodes on the 'board' can be any number, such as 5x5 or 9x9, selected by the requirements of the application or the designer. Thus, it is considered mere aesthetic design choice to have diodes more densely located in one portion, such as the center, then other

portions such as the outer edges of the board, in order to provide emphasis on a particular pay line or symbol position, such that in Sunaga et al's reel structure, the three compartments are modifiable in view of Haruta's teachings to house, for example, a 9x9 array in the center, but a 5x5 array in the outer compartments.

The Applicant has not disclosed that having that particular arrangement of diodes (i.e. different densities on the board) solves any stated problem or is for any particular purpose, and it appears the reel device would perform equally well with many other arrangement of diodes. A review of applicant's specification discloses specifically that using diodes instead of older techniques which used lamps is an advantage, however, no where in the specification can The Examiner locate any disclosure of why having the particular claimed arrangement (i.e. different densities) is an advantage or is for any specific reason over any other different conceivable arrangement (i.e. evenly spaced diodes). Therefore, it appears the only benefit of having the diodes arranged in the claimed manner is for aesthetics, which is not regarded as patentably distinct subject matter. See MPEP 2144.04 regarding "Aesthetic Design Changes," in which *In Re Seid* 73 USPQ 431 is discussed. The court found that "matters relating to ornamentation only which have no mechanical function cannot be relied upon to patentably distinguish the claimed invention from the prior art." In the instant case, the claimed arrangement of the diodes provides the same function as Sunaga et al's lighting means with different ornamentation or aesthetic look. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to design or modify Sunaga et al's reel device to include a more dense number of diodes in one portion of the light board versus another portion, for example, center having more then the

outer portions, in order to provide emphasis on certain symbol positions versus other symbol positions.

Claim 2: As discussed above in part c of claim 1, Sunaga et al. clearly show spokes attached from the hub portion of the reel drum to the frame portion of the reel drum (figure 8);

Claims 5, 6, 9 & 60: Sunaga et al. disclose the invention substantially as claimed except for:

- a) the plurality of light emitting diodes may be illuminated individually;
- b) the plurality of light emitting diodes may form illuminated numbers, characters, symbols, or letters; and
- c) a controller in communication with the light emitting diodes, wherein the controller selectively illuminates the light emitting diodes.

However, Haruta discloses a controller in communication with the plurality of light emitting diodes, such that the diodes can be illuminated individually for the purpose of forming an illuminated character, thus, all three limitations are disclosed by Haruta (see English translation paragraphs 0017-0021, & 0030; and figures 6, 19, 21, & 24-32 including related descriptions thereof). Haruta discloses that conventional slot machines only have a limited number of different effects, and such modifications increase the number of effects possible on a conventional slot machine by using a dot matrix arrangement of light emitting diodes mixed in with a reel trip having conventional symbols in order to enhance the game or show a winning state in an effective way (see English abstract), in turn increasing player excitement, retention, and gaming revenues. Therefore, it would have been obvious to one of ordinary skill at the time of the invention to modify Sunaga et al. with a plurality of light emitting diodes in each compartment that are individually selectable via a driver circuit or

controller in order to enhance the game or show a winning state in an effective way, in turn increasing player excitement, retention, and gaming revenues.

Claims 7 & 8: Sunaga et al. disclose the invention substantially as claimed except for specifically disclosing the chemical make up or physical type of light emitting diode that is used in the reel structure, such as indium gallium arsenide, gallium nitride, or organic as in claims 7 & 8. However, at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to select the type of light emitting diode that was available, cheap, or any other justification required by the designer to select a specific type of light emitting diode. The Applicant also suggests that the type of diode used is a mere design consideration, as discussed in Applicant's specification (paragraph 00045 of the patent application publication). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use either of the three types of light emitting diodes discussed above in the reel device disclosed by Sunaga et al. because the type of diode selected does not appear to effect the operation of Sunaga et al's reel device in a negative manner, such that the reel device would perform equally well with any of the three types of diodes used.

Claim 10: As discussed above, it was determined that the specific type of light emitting diode used is a mere design consideration, incorporating the same explanation for claim 10 results in a light emitting diode having more than one wavelength, since a particular type of light emitting diode discussed above is an organic diode, which one of ordinary skill in the art knows has multiple wavelengths; and furthermore because of the availability of multiple wavelengths, it would be obvious to utilize the multiple wavelengths using the microprocessor as the microprocessor controls all electronics within the reel device.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Sunaga et al. with well known organic diodes having multiple wavelengths and using the available processor/controller to select a wavelength to be used in order to enhance the game or show a winning state in an effective way with multiple colors, in turn increasing player excitement, retention, and gaming revenues.

Claims 46 & 47: Sunaga et al. disclose the invention substantially as claimed except for explicitly disclosing that the reel strip is partially transparent and partially translucent. However, the combination of Sunaga et al. & Haruta disclose various portions of the reel strip being translucent and other portions being transparent. The reel strip used in Haruta's reel device includes a plurality of symbol positions which are translucent color ink and a plurality of blank locations, which are transparent locations, such that the matrix of light emitting diodes are shown through the blank locations to create illuminated characters or symbols, without use of the reel strip indicia (paragraphs 0017-0019; figures 4, 5, & 24-32; and the related descriptions thereof).

Claims 48 & 62: Sunaga et al. disclose the board is located underneath the reel strip, such that the light is transmitted to the inner surface of the reel strip or media, which in turn transmits the light to the outer surface for illuminating a reel position.

Claim 49: Sunaga et al. disclose the reel rotates about the light structure (abstract).

Claims 50 & 51: Sunaga et al. disclose the reel strip 26 or media is disposed about the circumference or frame of the reel. Sunaga et al. also discloses the reel strip comprises a plurality of indicia or symbols (column 7, lines 39-46).

Claims 52-55 & 63: In view of the rejection of claims 1 & 44 regarding to the arrangement of diodes, the combination of Sunaga et al. & Haruta, transmits bright light (via diodes in

any arrangement) to the media, which is used to highlight or convey the random game outcomes. This is considered the function or purpose of having the light board inside the reel.

Claim 64: As discussed above, the specific arrangement of the first density of lights are more closely spaced and the second density of lights are less closely spaced is an aesthetic design choice, see rejection of claim 56 for details.

Claims 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sunaga et al. & Haruta, as applied to claims 1, 2, 5-10, 44, 46-57, & 60-64, where applicable, further in view of Ikeda et al. (Japanese Patent No. 2001-087458) (attached to the previous action was a machine translation of the abstract & detailed description to English).

Claim 4: The combination of Sunaga et al. & Haruta discloses the invention substantially as claimed except for a portion of the plurality of light emitting diodes emit a different color than another portion of the plurality of light emitting diodes. However, Ikeda et al. disclose a game machine in which the reel device displays the symbols in 3 different colors depending on how much of the winning combination has been hit, such that when 1 of 5 is obtained, the center is red, when 3 of 5 is obtained, the center is red and the outer parts are green, and when 5 of 5 are obtained, all the diodes are blue (see English abstract). One would be motivated to add color indicators for the purpose of players easily recognizing if they've won no award, a small award, or a big award (i.e. a jackpot) just by looking at which color the symbols are highlighted with. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Sunaga et al. & Haruta with light emitting diodes of different colors as taught by Ikeda et al. in order to allow

players to easily recognize when they've won a big jackpot versus winning nothing or small awards.

Claims 58 & 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sunaga et al. & Haruta, as applied to claims 1, 2, 5-10, 44, 46-57, & 60-64, where applicable, further in view of Ugawa (U.S. Patent No. 5,509,655).

Claims 58 & 59: The combination of Sunaga et al. & Haruta disclose the invention substantially as claimed except for explicitly disclosing that the diodes are specifically mounted on a printed circuit board, and in turn continuing the discussion of at least claim 1, 44, & 56, the combination lacks disclosing the diodes are mounted in different densities across the printed circuit board. However, the combination does disclose the diodes are mounted on a “board” or light case. It is understood that the diodes are mounted to the board and necessary wires run from the ends of the diodes or lights to the circuitry stored elsewhere. Ugawa discloses a reel structure in which a printed circuit board has lights mounted directly to it, which are then deposited in the light case or equivalent board (figure 5 and the related description thereof). One would be motivated to modify the combination of Sunaga et al. and Haruta for the purpose of creating a reel structure in which no wires are needed for connecting diodes or lights to the circuitry that controls them, thus, reducing manufacturer cost and congestion within the limited space inside of a reel structure. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Sunaga et al. and Haruta with diodes being directly mounted to a PCB or printed circuit board and using the circuit board as a “light case” in order to reduce manufacturer cost and limit the congestion within the reel structure, such

that the space could be used for additional features. In addition to Ugawa it should be noted that printed circuit boards (PCBs) are well known in the art and similar arts, such as the cellular phone art, in which a majority of cellular phones consist of a PCBs with small light emitting diodes mounted directly on them for use in lighting up the keypad.

Response to Arguments

The previous office action's drawings objections, claim objections, and 35 U.S.C. 112 rejections are all hereby withdrawn in response to corrections and/or clarification via the amendment filed on September 22, 2006.

Applicant's arguments filed September 22, 2006 have been fully considered but they are not persuasive.

The Applicant's arguments include a traversal to the Examiners rejection of original claim 3 based upon obvious design choice. Further arguing that Haruta discusses having different sized matrices of diodes on different reels but does not show different densities on the same reel. Additional, the Applicant requests an affidavit from the Examiner if the Examiner is using personal knowledge as part of the rejection. The Examiner respectfully disagrees with these characterizations. As an initial matter, no personal knowledge was used in the original rejection or is being used in the new rejection above, thus no affidavit is necessary. The Examiner is merely suggesting that the specific arrangement of diodes (i.e. what applicant refers to as different densities on the board) is an aesthetic design choice. Haruta is used as supportive evidence that one of ordinary skill in the art may design reels with different diode arrangement, such as choosing 5x5 or 9x9 matrices of diodes within each compartment of the board as discussed in Haruta. The reference is merely being used to support the obvious design choice rejection, since it can be clearly seen that the in Haruta, the

designer, has complete control over the layout or arrangement of lights on the light board, thus, one of ordinary skill is capable of having this same control over the layout or arrangement of lights. Therefore, the concept of the rejection is maintained and updated as shown above. See updated rejections for specific details including MPEP citations of court cases referring to aesthetic design choice.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Milap Shah whose telephone number is (571) 272-1723. The examiner can normally be reached on M-F: 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hotaling can be reached on (571) 272-4437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M.B.S.

Scott Jones
SCOTT JONES
PRIMARY EXAMINER